FIG. 1a

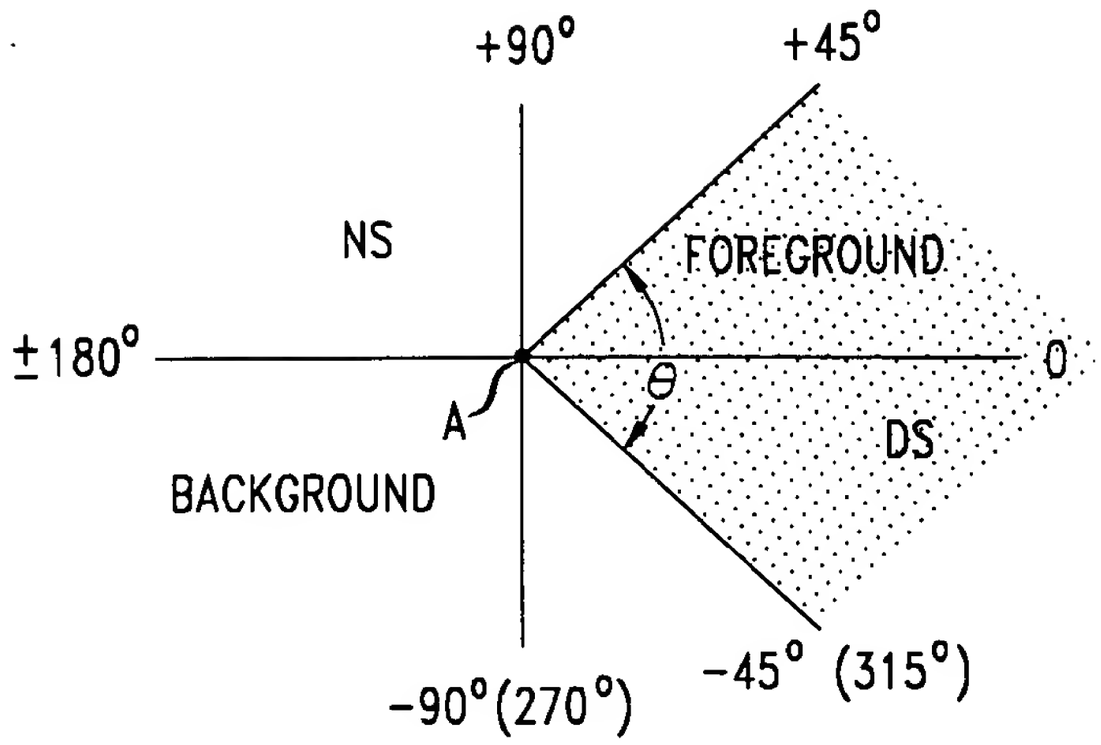

FIG. 1b

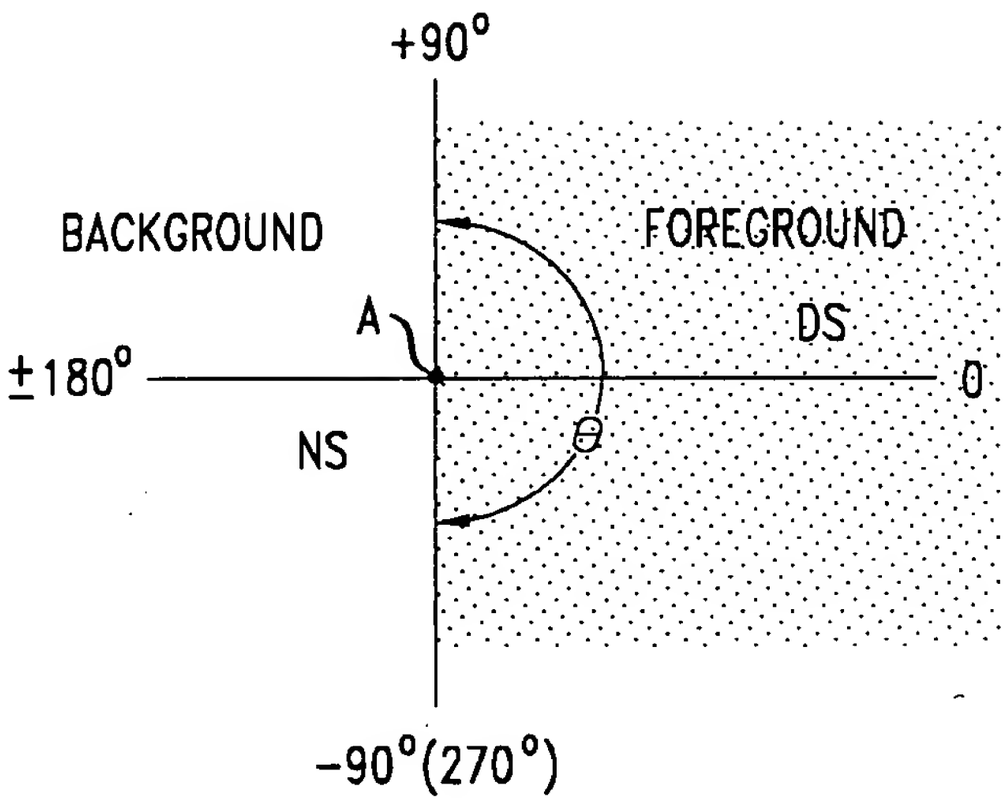

FIG. 1c

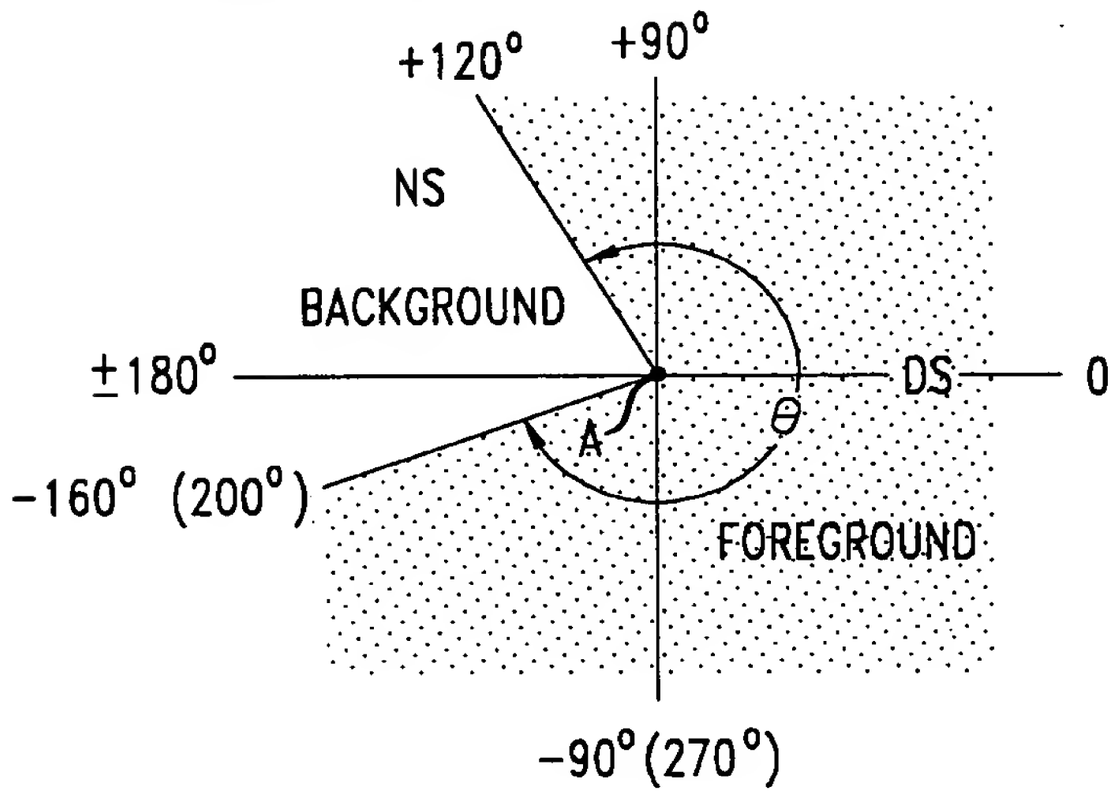

FIG. 2

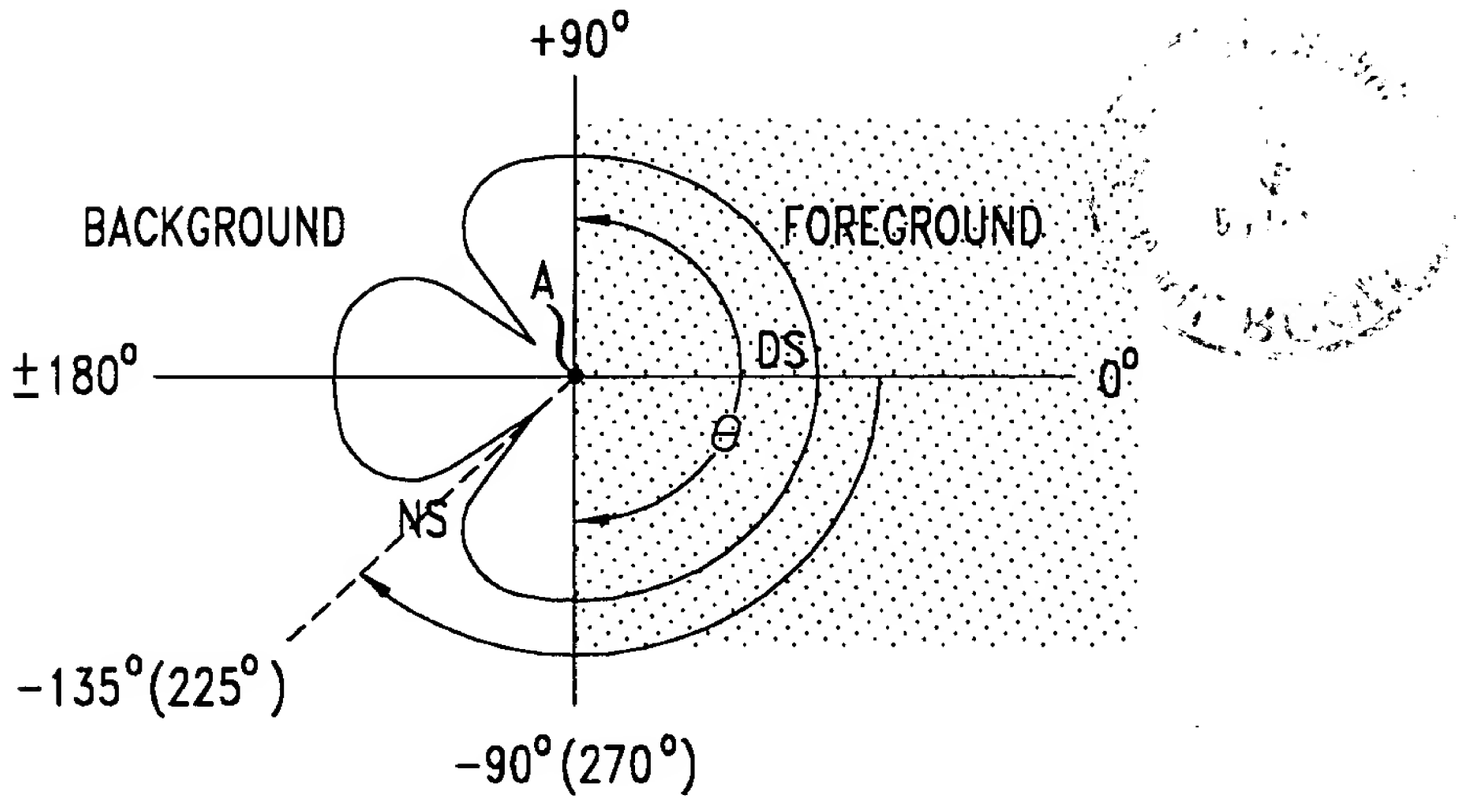

FIG. 3

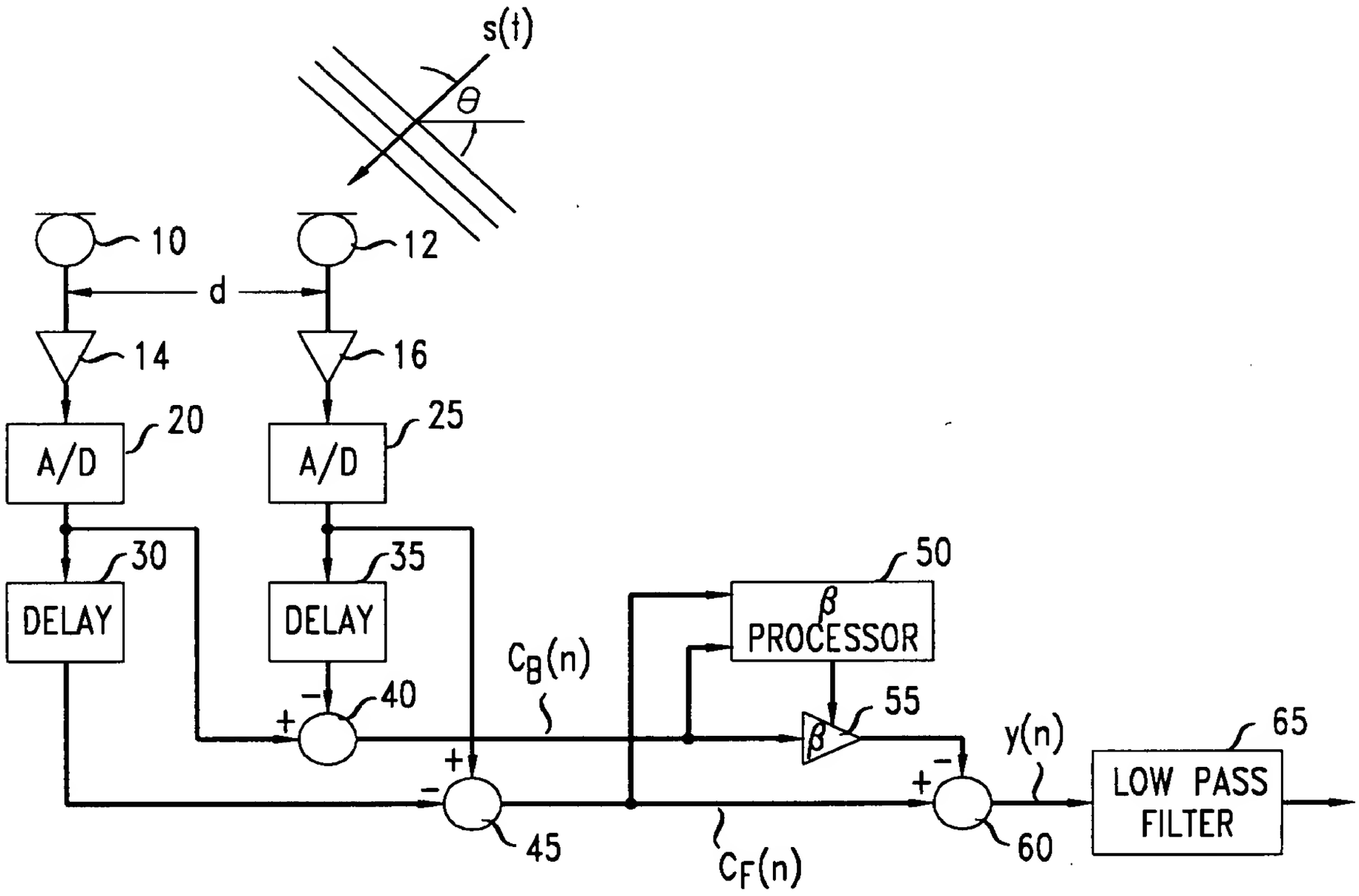

FIG. 4

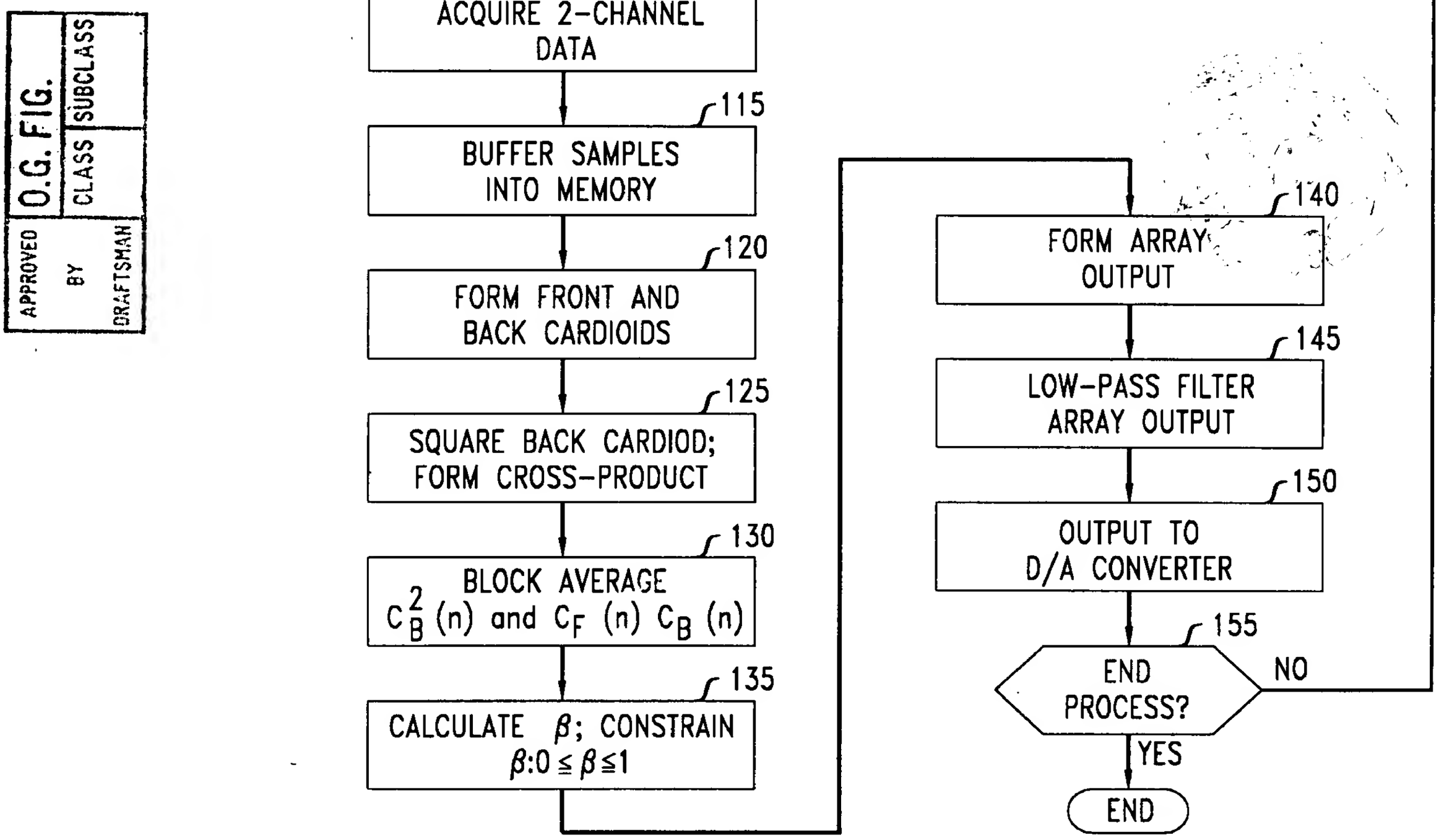
BEGIN
110
ACQUIRE 2-CHANNEL DATA
115
BUFFER SAMPLES INTO MEMORY
120
FORM FRONT AND BACK CARDIOIDS
125
SQUARE BACK CARDIOD; FORM CROSS-PRODUCT
130
BLOCK AVERAGE $C_B^2(n)$ and $C_F(n)\ C_B(n)$
135
CALCULATE β; CONSTRAIN β:0 ≤ β ≤1
140
FORM ARRAY OUTPUT
145
LOW-PASS FILTER ARRAY OUTPUT
150
OUTPUT TO D/A CONVERTER
155
END PROCESS?
NO
YES
END

FIG. 5

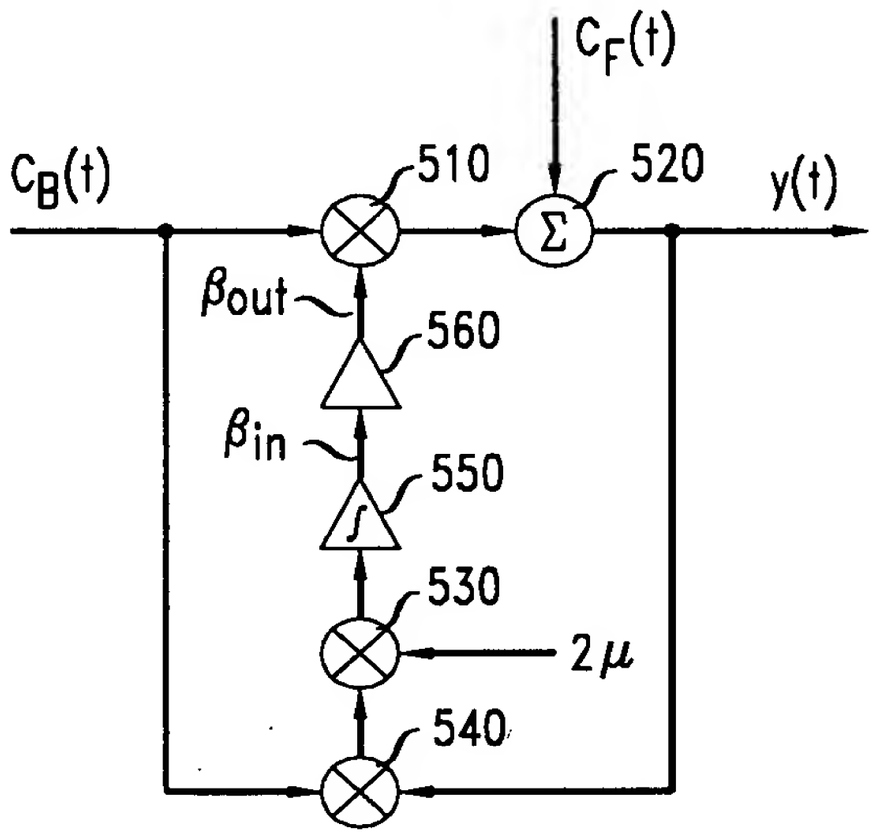
$C_F(t)$
$C_B(t)$
510
520
y(t)
β_{out}
560
β_{in}
550
530
2μ
540

FIG. 6a

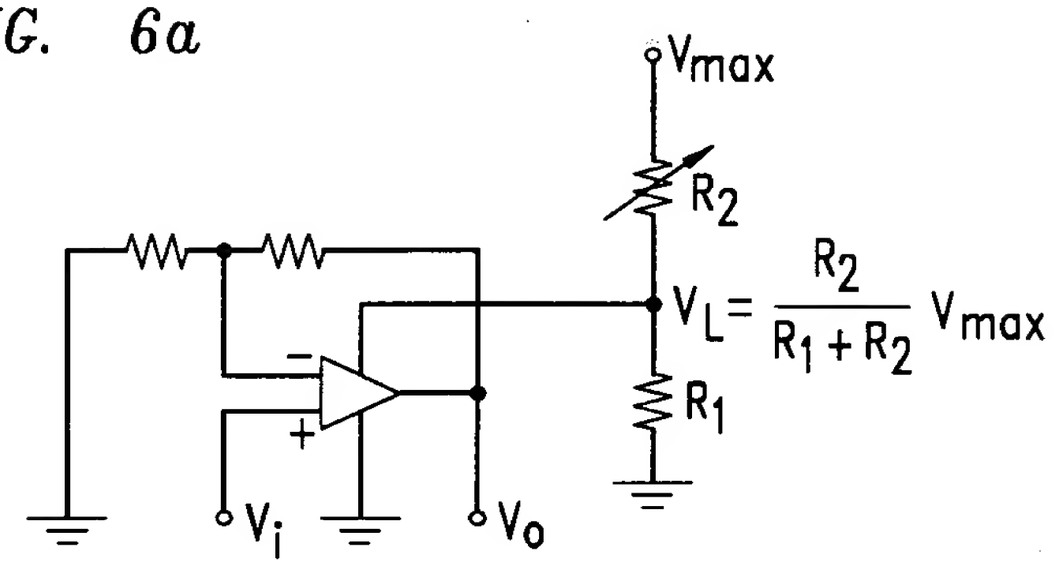

FIG. 6b

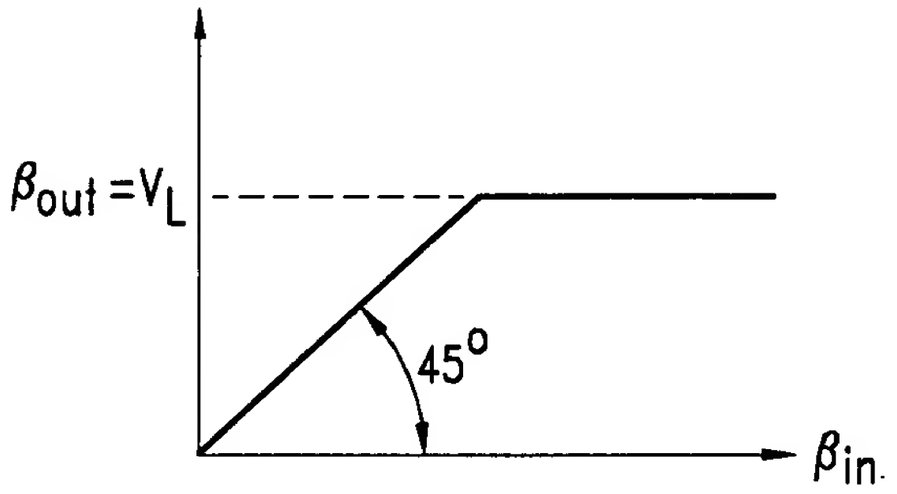

FIG. 7

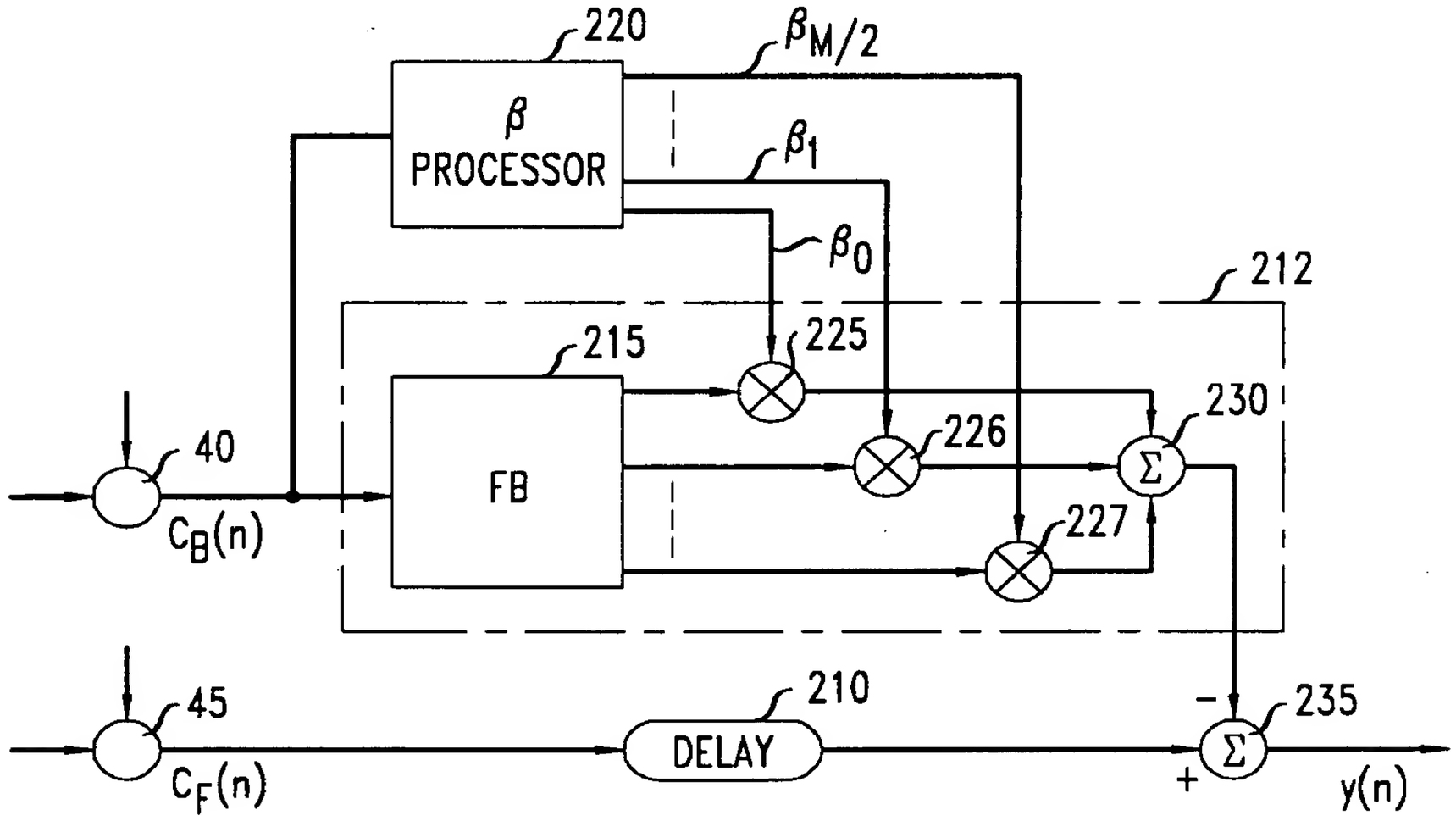

FIG. 8

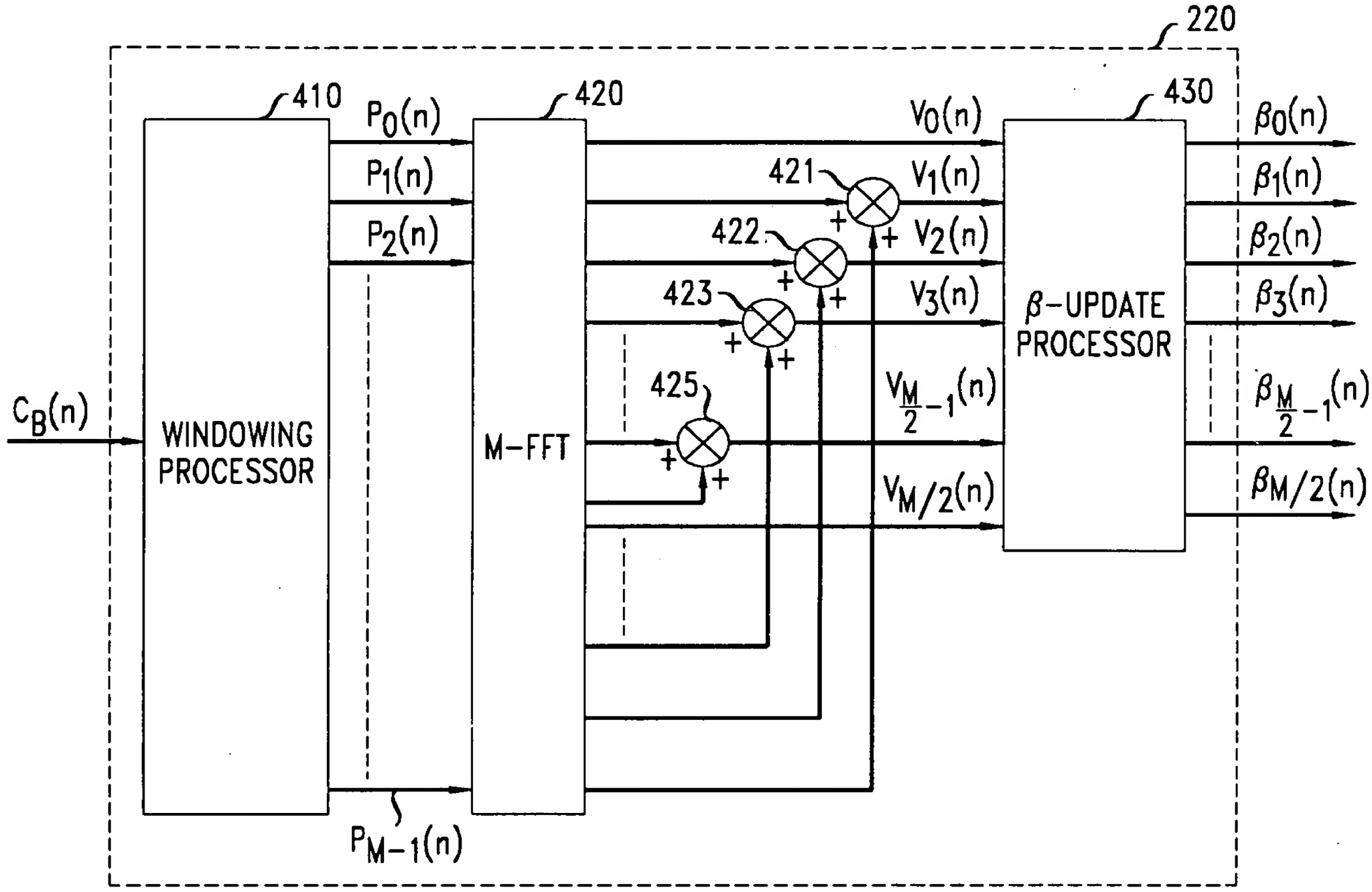
220
410
420
430
$C_B(n)$
WINDOWING PROCESSOR
M-FFT
$P_0(n)$
$P_1(n)$
$P_2(n)$
$P_{M-1}(n)$
421
422
423
425
$V_0(n)$
$V_1(n)$
$V_2(n)$
$V_3(n)$
$V_{\frac{M}{2}-1}(n)$
$V_{M/2}(n)$
β-UPDATE PROCESSOR
$\beta_0(n)$
$\beta_1(n)$
$\beta_2(n)$
$\beta_3(n)$
$\beta_{\frac{M}{2}-1}(n)$
$\beta_{M/2}(n)$

FIG. 9

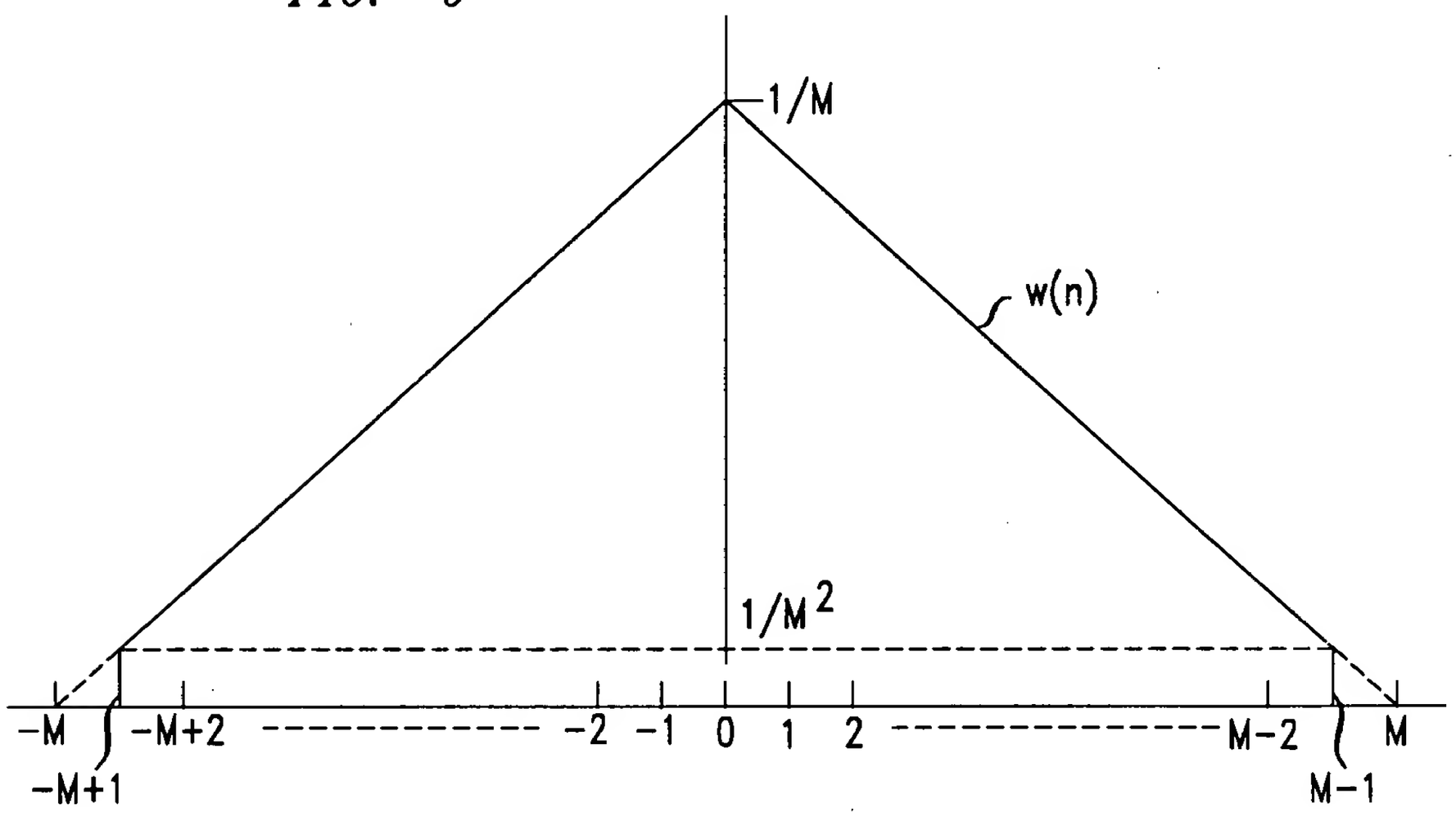
1/M
w(n)
$1/M^2$
-M
-M+1
-M+2
-2
-1
0
1
2
M-2
M-1
M

FIG. 10

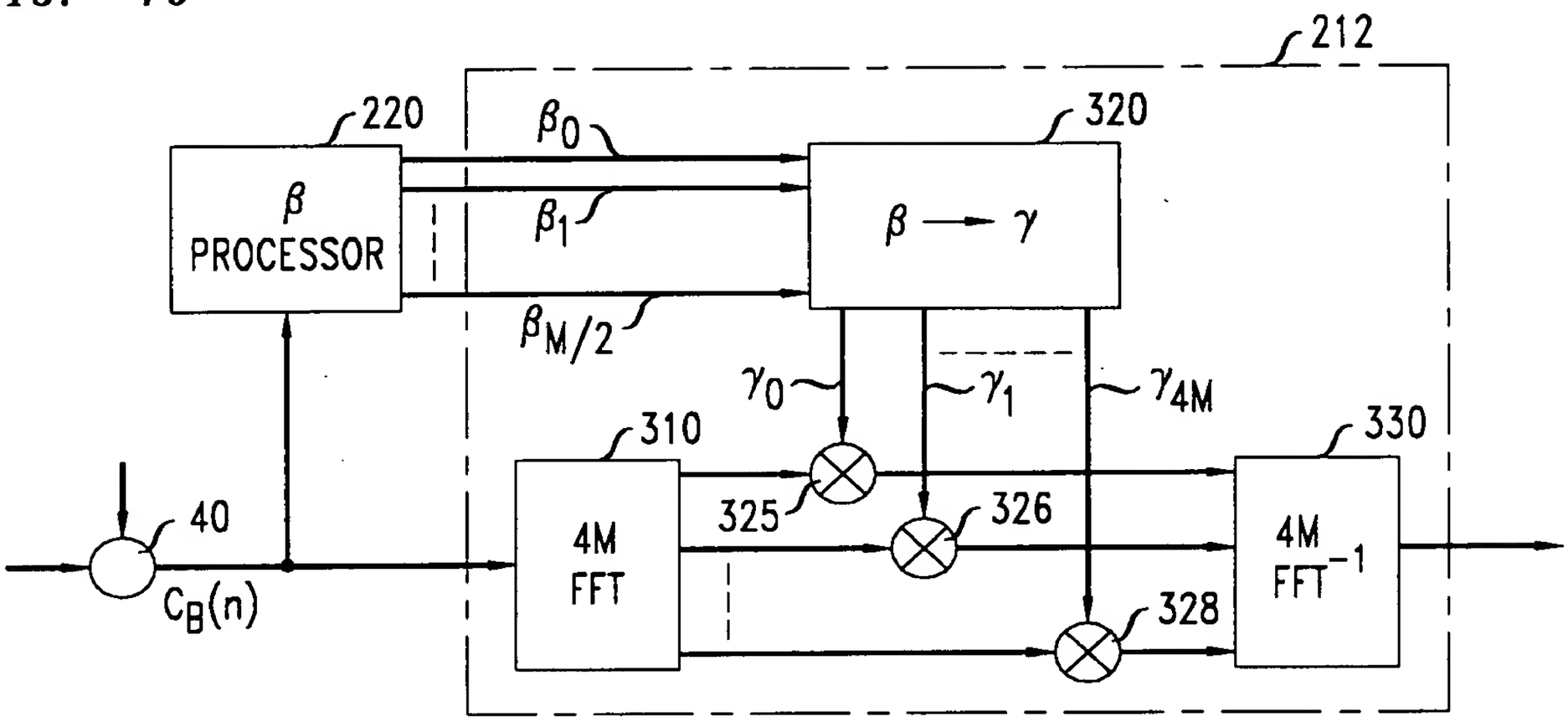

FIG. 11

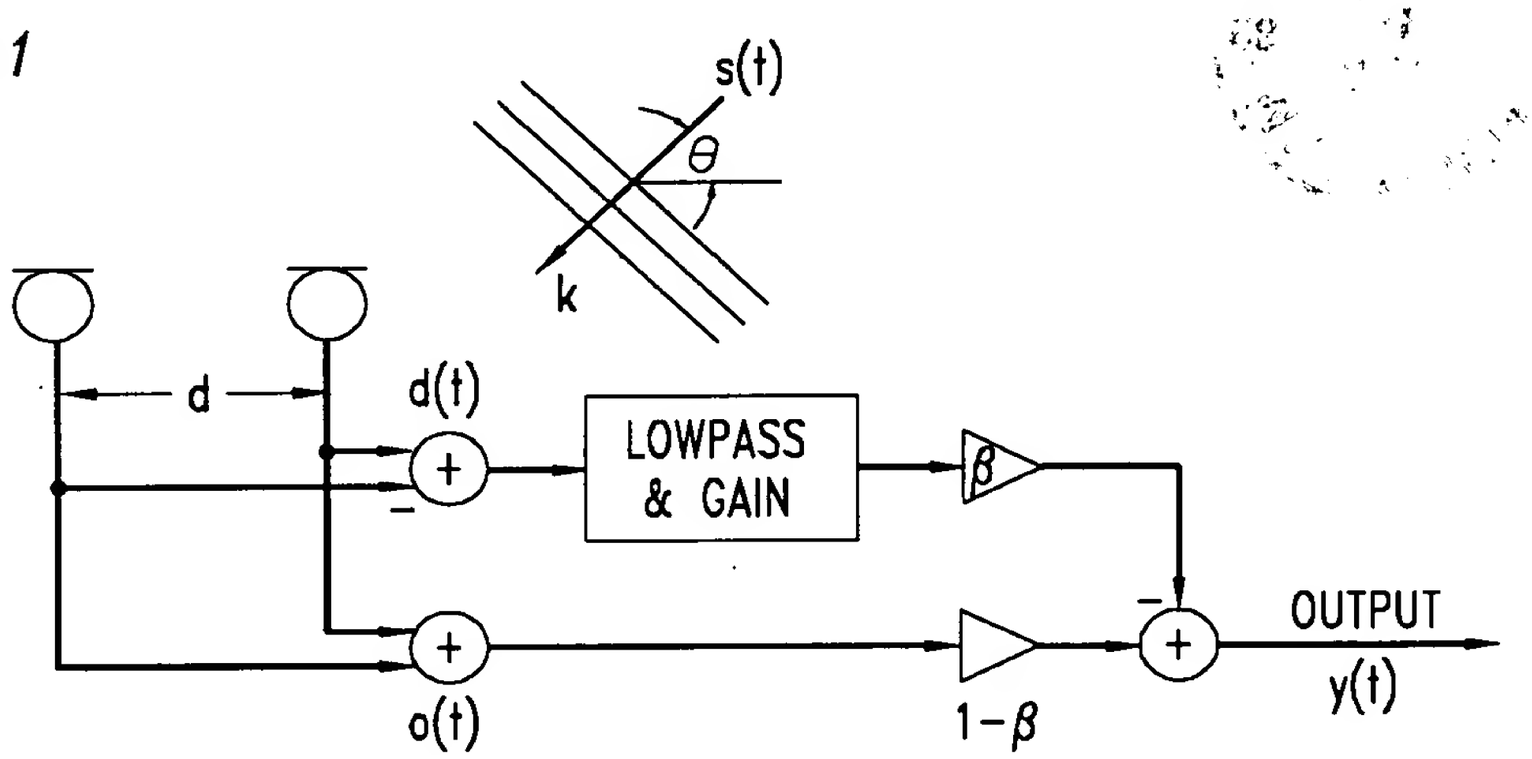

FIG. 12